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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H01Q1/38 H01C H01Q1/36 H0109/27According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 H010 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Category \* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X US 5 929 825 A (NIU ET AL) 1-5 27 July 1999 (1999-07-27) figures 4,5 column 3, lines 7-42 abstract X EP 1 091 445 A (MATSUSHITA ELECTRIC 1-5 INDUSTRIAL CO., LTD) 11 April 2001 (2001-04-11) figure 26a paragraphs '0106! - '0114! X EP 0 884 796 A (MATSUSHITA ELECTRIC 1-5 INDUSTRIAL CO., LTD) 16 December 1998 (1998-12-16) figures 3a,3b,17 column 12, line 15 - column 13, line 4 column 17, line 37 - column 18, line 21 -/--Further documents are listed in the continuation of box C. Patent family members are listed in annex. X Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the \*A\* document defining the general state of the art which is not considered to be of particular relevance \*E\* earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search **29** 07. 2005 15 April 2005 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Unterberger, M

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| Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)   |
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| This International Search_Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:   |
| Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:  |
| Claims Nos.:     because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: |
| 3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).  |
| Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)   |
| This International Searching Authority found multiple inventions in this international application, as follows:  |
| see additional sheet   |
| As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.   |
| As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.   |
| 3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:                        |
| 4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report Is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  See annex |
| Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.  |

#### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5

antenna having two spiral conductors on two opposite sides of a substrate

2. claims: 6-20

branched monopole antenna with additional conducting plate located opposite to the branched monopole  ${\sf var}$ 

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| Patent document cited in search report |           |            | Publication<br>date |      | Patent family<br>member(s) |    | Publication date |  |
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